

# Burning Used Oil in a Space Heater

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If you burn used oil in a space heater, there are some requirements and limitations that you should know about. The purpose of this publication is to answer commonly asked questions associated with burning used oil in on-site space heaters.

## *What Requirements Apply to Burning Used Oil in a Space Heater?*

There are reduced regulations for persons burning used oil in on-site space heaters.

You are exempt from the more stringent used oil marketing and burning requirements, including the need to determine if your waste meets used oil specifications, if your used oil is *not hazardous waste* and the following 3 standards are met:

- ◆ Your heater burns only used oil that your business or institution:
  - generates on-site, or at other locations it owns or operates, or
  - receives directly from household do-it-yourselfers, or
  - receives from farmers who generate an average of less than 25 gallons of used oil per month.
- ◆ The space heater is designed to have a maximum capacity of not more than 500,000 BTUs per hour.

- ◆ The combustion gases from the heater are vented outside.

Generators that do not meet these conditions may be subject to full used oil management requirements. Refer to [DNR publication WA-104, Used Oil Burning](#), for more information.

Used oil burned in space heaters is subject to the “rebuttable presumption” and may be regulated as hazardous waste based strictly on its halogen content. For more information, see the section “Is Your Used Oil Hazardous Waste?”

To minimize air emissions the heater must be properly maintained and operated so that it burns the fuel completely and does not create smoke. If your unit exceeds the 500,000 BTU maximum capacity you may need an air pollution control permit and should contact the [Bureau of Air Management](#) or your DNR region air specialist for more information.



**Used oil collected from households and aggregated by a second party, such as a municipal collection center, is no longer considered “household generated used oil” once it is received by a third party.**

## What are Used Oil Specifications?

Persons not meeting the conditions on Page 1 are not eligible for the reduced requirements and must comply with used oil specification requirements.

As part of its used oil management regulations, the US EPA developed used oil specifications. These specifications are a set of criteria intended to be protective of human health and the environment. Used oil that meets the specifications is called “on-spec” and is considered comparable to a product fuel oil in terms of regulation.

The following chart illustrates used oil fuel specifications.

Constituent or property	Allowable level
Arsenic .....	5 ppm maximum
Cadmium.....	2 ppm maximum
Chromium .....	10 ppm maximum
Lead.....	100 ppm maximum
Flash point.....	100 °F minimum
Total halogens.....	4,000 ppm maximum

A person who first claims that the oil, destined to be burned for energy, meets the used oil fuel specifications is subject to Used Oil Marketing Standards found in Subchapter H of chapter NR 679, Wis. Adm. Code. In addition to recordkeeping requirements, marketers must use testing or other information to determine if the oil meets specifications. Used oil that exceeds specifications is subject to Used Oil Burning Standards in Subchapter G of chapter NR 679, Wis. Adm. Code. Unless burned in an exempt space heater discussed in the previous section, off-specification used oil can only be burned in boilers or industrial furnaces that meet certain standards.

## Is Your Used Oil Hazardous Waste?

Mixing used oil with hazardous waste may cause the entire mixture to be regulated as hazardous waste.

*Rebuttable Presumption.* With limited exceptions, used oil that contains 1,000 ppm or more total halogen is presumed to be mixed with hazardous waste unless it can be demonstrated otherwise. Persons may rebut the presumption that used oil has been mixed with hazardous waste by showing, through testing or knowledge, that the source of halogens is not a listed hazardous waste.

Best management practices such as not using chlorinated solvents in your shop and segregating chlorine-containing air conditioning refrigerant recovery oil may help to ensure that your used oil is not hazardous waste.

Very small quantity generators (VSQGs) produce less than 220 pounds of non-acute hazardous waste per month and accumulate less than 2,205 pounds of hazardous waste at any time. VSQGs mixing their used oil containing more than 1,000 ppm total halogens (such as chlorine-containing refrigerant recovery oil) with their other used oil may rebut the presumption that the oil is hazardous waste by documenting that the mixture contains only VSQG hazardous waste. A VSQG who does this should keep records to show that the mixtures are regulated as used oil.

Mixing with Hazardous Waste. Mixtures of used oil and VSQG hazardous waste are regulated as used oil. See ss. NR 679.10(2) and 679.21, Wis. Adm. Code, for more information on the rebuttable presumption and other regulations for used oil and hazardous waste mixtures.

If you mix used oil with other waste for burning in a space heater, you should also: 1) ensure your fuel has enough fuel value, such as a minimum of 5,000 BTUs per pound, to be legitimately burned for energy recovery, and 2) ask your space heater manufacturer if your fuel mixture is compatible with the space heater design, construction, operation and warranty. Regardless of how you manage your



mixtures, you should ask the [WI Department of Commerce](#) and your local fire inspector about additional requirements for management of flammable and combustible liquid, building codes or other requirements that may apply.

## Can You Accept Used Oil from Another Business?

Used oil accepted from another business can only be burned in a space heater if the oil is “on-spec” as discussed above. The first person to claim that the oil burned in a space heater is on-spec, is subject to the Used Oil Marketing Standards in Subchapter H of chapter NR 679, Wis. Adm. Code, and must:

1. Analyze the used oil to prove it is on-specification, obtain copies of analysis or other information documenting that the oil meets specifications.
2. Keep a record of this analysis for 3 years.
3. Keep an operating log of all used oil shipments including quantity, date and cross reference to the information used to determine that the oil meets specifications.

Used oil accepted from off-site that does not meet the used oil specifications above cannot be burned in a space heater and must instead be sent to a used oil processor, re-refiner or certain boilers or industrial furnaces.

**You cannot burn used oil collected from another business in a space heater unless the oil meets used oil fuel specifications.**

If you are a small business that periodically needs supplemental fuel for your space heater, collecting used oil from exempt generators such as households or exempt farmers, or purchasing on-spec used oil from a commercial used oil marketer may be simpler and more economical than making the specification determination and acting as your own marketer.

## Do You Need a Transportation License to Transport Used Oil?

Unless exempt, persons transporting used oil are required to obtain an EPA identification number and a Wisconsin DNR solid waste transportation license.



**Self Transportation Exemption.** Generators may self-transport small amounts of used oil to a collection

center or from one generator operated site to another site operated by the same generator without obtaining a solid waste transportation license or US EPA identification number, provided that the following conditions are met:

- ◆ the oil is transported in a generator owned or generator employee vehicle, and
- ◆ the oil is transported in quantities of 55 gallons or less.

Persons transporting used oil collected from household do-it-yourselfers to a regulated used oil generator or other regulated used oil facility are not required to have an US EPA identification number or a solid waste transportation license, or to comply with the used oil transporter and transfer facility requirements.

All other persons must ensure that off-site shipments are transported by persons that have obtained an [US EPA identification number](#).

For information on obtaining a solid waste transportation license contact the [Regional DNR Environmental Program Associate](#) listed for your county.

## For more information

- *US EPA Identification Number: for Hazardous Waste and Used Oil Activities*

[http://www.dnr.state.wi.us/org/aw/wm/publications/hazard/wa\\_101.pdf](http://www.dnr.state.wi.us/org/aw/wm/publications/hazard/wa_101.pdf)

- *Notification of Regulated Hazardous Waste Activity (EPA Form 8700-12)*

<http://www.epa.gov/epaoswer/hazwaste/data/form8700/forms.htm#links/links>

- *Waste Management Program Hazardous Waste Contact List*

<http://www.dnr.wi.gov/org/aw/wm/contacts/hazard.htm>

- *Chapter NR 679 – Used Oil Management Standards*

<http://www.legis.state.wi.us/rsb/code/nr/nr679.pdf>

- *Used Oil Management*

[http://www.dnr.state.wi.us/org/aw/wm/publications/hazard/wa\\_233.pdf](http://www.dnr.state.wi.us/org/aw/wm/publications/hazard/wa_233.pdf)

- *Used Oil Burning*

<http://dnr.wi.gov/org/caer/cea/publications/pubs/section3/wa104.htm>

- *Wisconsin Recycling Markets Directory: (search Category Index for Motor Oil Recyclers)*

<http://www.dnr.state.wi.us/org/aw/wm/Markets/>

- *Guidance and Summary of Information Regarding the RCRA Used Oil Rebuttable Presumption*

[www.epa.gov/reg5rcra/wptdiv/usedoil/905-R-03-005.pdf](http://www.epa.gov/reg5rcra/wptdiv/usedoil/905-R-03-005.pdf).

<http://commerce.wi.gov/ER/ER-BST-UsedOil.html>

- *Department of Commerce – Tank Specialists*  
[http://commerce.wi.gov/ERpdf/bst/Forms\\_FM/ER-BST-FM-9687TankerMap.pdf](http://commerce.wi.gov/ERpdf/bst/Forms_FM/ER-BST-FM-9687TankerMap.pdf)

Contact 608/266-2111 or [Waste.Materials@dnr.state.wi.us](mailto:Waste.Materials@dnr.state.wi.us) for further information.

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To read about requirements for storing used oil in tanks see:

- *Environmental Services – Tank Storage, Used Motor Oil / Waste Oil*